



1/5

#6  
RECEIVED  
SEP 27 2001  
TECH CENTER 1600/2900

SEQUENCE LISTING

<110> Abbott Laboratories  
Coleman, Paul F.  
Mushahwar, Isa K.

<120> Hepatitis B Virus Surface Antigen Mutant  
And Methods Of Detection Thereof

<130> 6794.US.01

<140> 09/821,877

<141> 2001-03-30

<160> 8

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 1181

<212> DNA

<213> Hepatitis B Virus

<400> 1

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tggccagacg	ccaacaaggt	aggagctgga	gcattcggac	tgggggttcac	cccaccgcac	180
ggaggccttt	tgggggtggag	ccctcaggct	cagggcataa	cacaaacctt	gccagcaaat	240
ccgcctcctg	cttccaccaa	togccagtca	ggaaggcagc	ctaccccgt	gtctccacct	300
ttgagaaaca	ctcatcctca	agccatgcag	tggaaactcca	caactttcca	ccaaactctg	360
caagatccca	gagtgagagg	tctgtatttc	cctgctgggt	gctccagttc	aggaacagta	420
aaccctgttc	cgactactgt	ctctcccata	tcttcaatct	tctcgaggat	tggggaccct	480
gcgcggaaca	tggagaacat	cacatcagga	ttcctaggac	ccctgctcgt	gttacaggcg	540
gggtttttct	tgttgacaag	aatcctcaca	ataccgcaga	gtctagactc	gtggtggact	600
tctctcaatt	ttctaggggg	aactaccgtg	tgtcttggcc	aaaattcgca	gtccccaacc	660
tccaatcact	caccaacctc	ctgtcctcca	acttgtcctg	gttatcgctg	gatgtgtctg	720
cggcgtttta	tcattcttct	cttcattcctg	ctgctatgcc	tcattcttct	gttgggttct	780
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acgggaccat	gcagagcctg	caagactcct	gctcaaggaa	cctctatgta	tccctcctgt	900
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ttcggaataa	tcctatggga	gtgggcctca	gcccgtttct	cctggctcag	tttactagt	1020
ccatttggtc	agtgggtcgt	agggtttcc	cccactgttt	ggctttcagt	tatatggatg	1080
atgttgact	gggggccaa	tctgtacacc	atcttgagtc	cctttttacc	gctgttacca	1140
atcttctttt	gtctttgggt	atacatttaa	accctaataa	a		1181

<210> 2

<211> 389

<212> PRT

<213> Hepatitis B Virus

<400> 2

Met	Gly	Gln	Asn	Leu	Ser	Thr	Ser	Asn	Pro	Leu	Gly	Phe	Phe	Pro	Asp
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His	Gln	Leu	Asp	Pro	Ala	Phe	Arg	Ala	Asn	Thr	Asn	Asn	Pro	Asp	Trp
			20					25					30		

Asp Phe Asn Pro Asn Lys Asp Thr Trp Pro Asp Ala Asn Lys Val Gly  
           35                                  40                                  45  
 Ala Gly Ala Phe Gly Leu Gly Phe Thr Pro Pro His Gly Gly Leu Leu  
           50                                  55                                  60  
 Gly Trp Ser Pro Gln Ala Gln Gly Ile Thr Gln Thr Leu Pro Ala Asn  
 65                                  70                                  75                                  80  
 Pro Pro Pro Ala Ser Thr Asn Arg Gln Ser Gly Arg Gln Pro Thr Pro  
                                   85                                  90                                  95  
 Leu Ser Pro Pro Leu Arg Asn Thr His Pro Gln Ala Met Gln Trp Asn  
                                   100                                  105                                  110  
 Ser Thr Thr Phe His Gln Thr Leu Gln Asp Pro Arg Val Arg Gly Leu  
                                   115                                  120                                  125  
 Tyr Phe Pro Ala Gly Gly Ser Ser Ser Gly Thr Val Asn Pro Val Pro  
           130                                  135                                  140  
 Thr Thr Val Ser Pro Ile Ser Ser Ile Phe Ser Arg Ile Gly Asp Pro  
 145                                  150                                  155                                  160  
 Ala Arg Asn Met Glu Asn Ile Thr Ser Gly Phe Leu Gly Pro Leu Leu  
                                   165                                  170                                  175  
 Val Leu Gln Ala Gly Phe Phe Leu Leu Thr Arg Ile Leu Thr Ile Pro  
                                   180                                  185                                  190  
 Gln Ser Leu Asp Ser Trp Trp Thr Ser Leu Asn Phe Leu Gly Gly Thr  
           195                                  200                                  205  
 Thr Val Cys Leu Gly Gln Asn Ser Gln Ser Pro Thr Ser Asn His Ser  
           210                                  215                                  220  
 Pro Thr Ser Cys Pro Pro Thr Cys Pro Gly Tyr Arg Trp Met Cys Leu  
 225                                  230                                  235                                  240  
 Arg Arg Phe Ile Ile Phe Leu Phe Ile Leu Leu Leu Cys Leu Ile Phe  
                                   245                                  250                                  255  
 Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu Pro Val Cys Pro Leu  
                                   260                                  265                                  270  
 Ile Pro Gly Ser Ser Thr Thr Ser Thr Gly Pro Cys Arg Ala Cys Thr  
           275                                  280                                  285  
 Thr Pro Ala Gln Gly Thr Ser Met Tyr Pro Ser Cys Cys Cys Thr Lys  
           290                                  295                                  300  
 Pro Ser Asp Gly Asn Cys Thr Cys Ile Pro Ile Pro Ser Ser Trp Ala  
 305                                  310                                  315                                  320  
 Phe Gly Lys Phe Leu Trp Glu Trp Ala Ser Ala Arg Phe Ser Trp Leu  
                                   325                                  330                                  335  
 Ser Leu Leu Val Pro Phe Val Gln Trp Phe Val Gly Leu Ser Pro Thr  
                                   340                                  345                                  350  
 Val Trp Leu Ser Val Ile Trp Met Met Leu Tyr Trp Gly Pro Ser Leu  
           355                                  360                                  365  
 Tyr Thr Ile Leu Ser Pro Phe Leu Pro Leu Leu Pro Ile Phe Phe Cys  
           370                                  375                                  380  
 Leu Trp Val Tyr Ile  
 385

&lt;210&gt; 3

&lt;211&gt; 681

&lt;212&gt; DNA

&lt;213&gt; Hepatitis B Virus

&lt;400&gt; 3

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tggttgacaa	gaatcctcac	aataccgcag	agtcctagact	cgtgggtggac	ttctctcaat	120
tttctagggg	gaactaccgt	gtgtcttggc	caaaattcgc	agtcaccaac	ctccaatcac	180
tcaccaacct	cctgtcctcc	aacttgctct	ggttatcgct	ggatgtgtct	gcggcggttt	240

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atcatcttcc tcttcatcct gctgetatgc ctcatcttct tgttggttct totggactat 300
caaggtatgt tgcccgtttg tctctaaatt ccaggatcat caaccaccag cacgggaccc 360
tgcagaacct gcacgactcc tgctcaagga acctctatgt atccctcctg ttgctgtaca 420
aaaccttcgg atggaaactg cacctgtatt cccatcccat catcctgggc ttctggaaaa 480
ttcctatggg agtgggcctc agcccgtttc tcttggtctca gtttactagt gccatttggt 540
cagtggttcg tagggctttc ccccaactgtt tggttttcag ttatatggat gatgtggtat 600
tgggggcca gctctgtacag catcttgagt ccctttttac cgctgttacc aattttcttt 660
tgtctttggg tatacattta a 681

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<210> 4  
 <211> 182  
 <212> DNA  
 <213> Hepatitis B Virus

<220>  
 <223> "a" Determinant for the Hepatitis B Virus Strain

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<400> 4
tatcaaggta tgttgcccggt ttgtcctcta attccaggat cttcaaccac cagcacggga 60
ccatgcagac ctgcacgact cctgctcaag gaacctctat gtatccctcc tgttgctgta 120
caaaaccttc ggatggaaac tgcacctgta ttcccatccc atcatcctgg gctttcggaa 180
aa 182

```

<210> 5  
 <211> 61  
 <212> PRT  
 <213> Hepatitis B Virus

<220>  
 <223> "a" Determinant for the mutant Hepatitis B Virus strain

```

<400> 5
Tyr Gln Gly Met Leu Pro Val Cys Pro Leu Ile Pro Gly Ser Ser Thr
  1           5           10           15
Thr Ser Thr Gly Pro Cys Arg Ala Cys Thr Thr Pro Ala Gln Gly Thr
      20           25           30
Ser Met Tyr Pro Ser Cys Cys Cys Thr Lys Pro Ser Asp Gly Asn Cys
      35           40           45
Thr Cys Ile Pro Ile Pro Ser Ser Trp Ala Phe Gly Lys
      50           55           60

```

<210> 6  
 <211> 690  
 <212> DNA  
 <213> Hepatitis B Virus

<220>  
 <223> Mutant Hepatitis B Virus Strain

```

<400> 6
gcgcggaaca tggagaacat cacatcagga ttctaggac cctgctcgt gttacaggcg 60
gggtttttct tgttgacaag aatcctcaca ataccgcaga gtctagactc gtgggtggact 120
tctctcaatt ttctagggg aactaccgtg tgtcttggcc aaaattcgca gtccccaacc 180
tccaatcact caccaacctc ctgtcctoca acttgctcgt gttatcgctg gatgtgtctg 240
cggcgtttta tcattcttct cttcatcctg ctgctatgcc tcattcttct gttgggttctt 300
ctggactatc aaggtatggt gcccgtttgt cctctaattc caggatcttc aaccaccagc 360

```

```

acgggacccat gcagagcctg cagcactcct gctcaaggaa cctctatgta tccctcctgt 420
tgctgtacaa aaccttcgga tggaaactgc acctgtattc ccatcccatc atcctgggct 480
ttcggaaaat tcctatggga gtgggcctca gcccgtttct cctgggtcag ttactagtgt 540
ccatttggtc agtggttcgt agggctttcc cccactgttt ggctttcagt tatatggatg 600
atgttggtact gggggccaag tctgtacacc atcttgagtc cctttttacc gctgttacca 660
attttctttt gtctttgggt atacatttaa 690

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<210> 7  
 <211> 690  
 <212> DNA  
 <213> Hepatitis B Virus

```

<400> 7
gcgctgaaca tggagaacat cacatcagga ttccctaggac ccctgctcgt gttacaggcg 60
gggtttttct tgttgacaag aatcctcaca ataccgcaga gtctagactc gtggtggact 120
tctctcaatt ttctaggggg aactaccgtg tgtcttggcc aaaattcgca gtccccaacc 180
tccaatcact caccaacctc ctgtcctcca acttgctcctg gttatcgctg gatgtgtctg 240
cggcgtttta tcatcttcct ctccatcctg ctgctatgcc tcatcttctt gttggttctt 300
ctggactatc aaggtatgtt gcccgtttgt cctctaattc caggatcacc aaccaccagc 360
acgggacccat gcaggacctg cagcactcct gctcaaggaa cctctatgta tccctcctgt 420
tgctgtacaa aaccttcgga tggaaactgc acctgtattc ccatcccatc atcctgggct 480
ttcggaaaat tcctatggga gtgggcctca gcccgtttct cctgggtcag ttactagtgt 540
ccatttggtc agtggttcgt agggctttcc cccactgttt ggctttcagt tatatggatg 600
atgtgggtatt gggggccaag tctgtacacc atcttgagtc cctttttacc gctgttacca 660
attttctttt gtctttgggt atacatttaa 690

```

<210> 8  
 <211> 229  
 <212> PRT  
 <213> Hepatitis B Virus

<220>  
 <221> VARIANT  
 <222> (126)... (126)  
 <223> Xaa = A or T at position 126

<221> VARIANT  
 <222> (202)... (202)  
 <223> Xaa = L or W at position 202

<221> VARIANT  
 <222> (210)... (210)  
 <223> Xaa = T or S at position 210

```

<400> 8
Ala Arg Asn Met Glu Asn Ile Thr Ser Gly Phe Leu Gly Pro Leu Leu
1      5      10      15
Val Leu Gln Ala Gly Phe Phe Leu Leu Thr Arg Ile Leu Thr Ile Pro
20      25      30
Gln Ser Leu Asp Ser Trp Trp Thr Ser Leu Asn Phe Leu Gly Gly Thr
35      40      45
Thr Val Cys Leu Gly Gln Asn Ser Gln Ser Pro Thr Ser Asn His Ser
50      55      60
Pro Thr Ser Cys Pro Pro Thr Cys Pro Gly Tyr Arg Trp Met Cys Leu
65      70      75      80
Arg Arg Phe Ile Ile Phe Leu Phe Ile Leu Leu Leu Cys Leu Ile Phe
85      90      95

```

